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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,023	02/17/2004	Thomas Schubert	16972-002001	2827

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FISH & RICHARDSON, PC  
P.O. BOX 1022  
MINNEAPOLIS, MN 55440-1022

EXAMINER
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LEWIS, DAVID LEE

ART UNIT	PAPER NUMBER
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2629

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/29/2006	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/781,023

Applicant(s)

SCHUBERT ET AL.

Examiner

David L. Lewis

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-7 and 10-23 is/are rejected.
- 7) ☒ Claim(s) 3, 8 and 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 6/9/2005; 11/29/2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**1. Claims 1, 2, and 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamura et al. (5995179) in view of Motoshima et al. (6271806).**

**As in claim 1, Tamura et al. teaches of a modular graphics paneled assembly, figure 3 and 10,**

**comprising: a first modular block, figure 3 item 10,**

**including a display surface, figure 3 item 12,**

**an edge portion defining at least one flat surface, figure 3 item 16,**

**and a mechanical interlock portion formed on the edge surface, figure 3 item 16.**

**However Tamura is silent as to said first contacts for power distribution and second contacts for signal distribution, located on said at least one flat surface.**

**Motoshima et al. teaches of first contacts for power distribution and second contacts for signal distribution, figure 2 and 3 items 106 and 105, column 6 lines 50-65, in a modular display, column 7 lines 8-30.**

**Tamura teaches** of first and second contacts however he fails to specify their separate use for power and signals. **Motoshima specifies** that a modular display first and second contact can be specified for power and signals.

**Therefore it would have been obvious** to the skilled artisan at the time of the invention to combine the modular display of Tamura having said surface first and second contacts, with Motoshima specifying the contacts be specific to power and signal distribution because Motoshima teaches such contacts are useful in a modular display, as found in claim 1.

**As in claim 2, Tamura et al. teaches of** further comprising a second modular block, where the connection portion of said first modular block interlocks with a corresponding connection portion of said second modular block, and the first contacts of said first modular block are connected to the first contacts of said second modular block, column 3 lines 16-25, column 5 lines 27-38.

**As in claim 4, Tamura et al. teaches of** further comprising a frame assembly, surrounding said first and second modular blocks, and at least one portion of said frame assembly connected to said first and second contacts, figure 3 items 14/16.

**As in claim 5, Tamura et al. teaches of** wherein said assembly includes four of said modular blocks arranged into a substantially rectangular shape, figure 10.

**As in claim 6, Tamura et al. teaches of** wherein said frame assembly includes Universal serial bus circuitry, receiving a universal serial bus signal, and communicating said Universal Serial Bus signal to said second contacts.

**As in claim 7, Tamura et al. in view of Motoshima et al. teaches of** wherein each of said modular blocks includes a plurality of light emitting diodes, Motoshima, column 7 lines 1-8, wherein Tamura teaches of alternative display types.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**2. Claims 10-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Tamura et al. (5995179).**

**As in claim 10, Tamura teaches of a modular display unit, figure 3 and 10,**

**comprising: a symmetrical housing, figure 10,**

**having a top surface with a controllable display portion thereon, figure 3 item 10/12**

**and edge portions with mechanically interlocking portions thereon, figure 3 item 16**

**each mechanically interlocking portion on one of said edge portions being sized and shaped to interlock with an edge portion on the different one of said housings, column 3 lines 1—25,**

**and said housing including a connector portion thereon supplying electrical connection and signal connection to said display portion, column 5 lines 27-40.**

**As in claim 11, Tamura teaches of** wherein said connector portion is formed on said edge portion, figure 3 item 16.

**As in claim 12, Tamura teaches of** wherein said connector portion is formed on each surface of said edge portion, figure 3 item 16.

**As in claim 13, Tamura teaches of** wherein said modular unit is formed with an outer perimeter having for substantially linear portions forming a substantially square outer perimeter, and said connector portion is formed on each of said linear portions, figure 3 item 16.

**As in claim 14, Tamura teaches of** wherein said mechanically interlocking portion is formed of beveled edges which connect with other beveled edges, figure 7A,B.

**As in claim 15, Tamura teaches of** wherein said mechanically interlocking portion is formed of a specified shape to only connect to the units which have their top face is in the same direction, figure 3 item 18A-C, figure 7A item 24C.

**As in claim 16, Tamura teaches of** further comprising tristate buffers, connected to said connectors, column 5 lines 25-40.

**As in claim 17, Tamura teaches of** display assembly, **figure 3 and 10,**

comprising: a plurality of modular units, each of said modular units being a symmetrical shape and having flat edges which interconnected with other modular units, **figure 3 item 10 and 16**

said plurality of modular units arranged into an array and each of said modular units having an electrical connection which connects to another module unit, **figure 10, column 5 lines 27-38;**

and a frame portion, surrounding a perimeter of the matrix of modular units, and connecting to at least one of the matrix of modular units, **figure 3 item 16.**

**As in claim 18, Tamura teaches of** wherein each of said modular units has a substantially square shape, forming four edge portions defining the perimeter of the modular units, figure 3 item 16.

**As in claim 19, Tamura teaches of** wherein said electrical connection is formed on each of said for edge portions, thereby allowing connection between the plurality of modular units and to the frame portion, figure 3 item 16, column 5 lines 25-40.

**As in claim 20, Tamura teaches of** wherein the frame portion includes electrical circuitry therein, column 5 lines 25-40.

**As in claim 21, Tamura teaches of** further comprising a memory, within the electrical circuitry, providing information to be displayed on the modular units, column 5 lines 25-40.

**As in claim 22, Tamura teaches of** method, comprising: assembling a plurality of modular display panels into a desired shape, figure 3 item 10; determining positions of each of said display panels, and forming a map defining said positions, figure 10 item 10; and sending an overall display to said device of said desired shape, by using said map to determine which parts of the device should display which portions, column 2, lines 5-34.

**As in claim 23, Tamura teaches of** method, comprising: assembling a modular display panel by connecting a first portion of the display panel to a second portion of the display panel, figure 3 item 10; and mechanically preventing said panels from being connected unless light emitting surfaces of both display panels face in the same direction, figure 7 item 7A item 38, column 2 lines 5-34, column 5 lines 25-40.

### ***Allowable Subject Matter***

3. Claims 3, 8 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **David L. Lewis** whose telephone number is **(571) 272-7673**. The examiner can normally be reached on MT and THF from 8 to 5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala, can be reached on **(571) 272-7681**. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571)-273-8300.

5. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should



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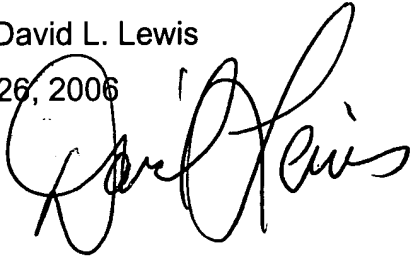
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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Examiner: David L. Lewis

December 26, 2006

A handwritten signature in black ink, appearing to read "David L. Lewis", is written over the printed name and date.